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ANNUAL REPORT

OF THE

BOSTON SANATORIUM

FOR THE YEAR ENDING JANUARY 31, 1923.

Boston, February 2, 1923.

Hon. James M. Curley,
Mayor of the City of Boston:

Dear Sir,— The report of the Boston Sanatorium for the year ending January 31, 1923, is respectfully submitted herewith.

The Board of Trustees met on May 18, 1922, and organized for the year. John F. O'Brien was elected chairman and James J. Minot secretary.

The appropriation for the year 1922–23 was $376,-902.44. The expenses for the year were $361,774.20, leaving a balance of $15,128.24, which was turned back to the city treasury.

The receipts for the year were $78,483.86, which are not credited to the Sanatorium but paid into the city treasury. This makes the net cost to the city $283,290.34.

Below is given a table showing the cost, the receipts and the net cost, together with the figures for the principal activities of the sanatorium for a number of years.

Up to 1922 the figure for cost for a year was made up of salaries from January 1 to January 1, all other items from December 1 to December 1. For 1922 and subsequently all figures for both salaries and all other items are from February 1 to February 1.

BOSTON

	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.
Total cost	$200,128 65	$200,804 48	$212,950 03	$213,340 96	$222,717 69	$260,737 70	$281,353 88	$291,755 64	$351,240 63	$367,626 51	$361,774 20
Paid into city treasury, subsidy, etc.	42,010 22	54,268 06	62,264 42	60,249 31	77,874 79	81,601 38	87,098 69	92,159 66	93,327 93	73,707 76	78,483 86
Net cost to city	$158,118 43	$146,536 42	$150,685 61	$152,091 65	$144,842 90	$179,136 32	$194,255 19	$199,595 98	$257,912 70	$293,918 75	$283,290 34

WARDS AT MATTAPAN.

	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.
Cost at Mattapan, without salaries.	$117,065 77	$110,936 22	$116,600 99	$114,313 51	$112,471 61	$136,547 48	$148,609 73	$139,109 83	$176,086 84	$180,680 63	$155,669 53
Salaries at Mattapan	$48,168 29	$54,707 32	$60,733 64	$61,584 37	$73,130 57	$81,824 66	$84,314 55	$97,343 41	$112,918 28	$114,135 59	$126,500 01
Number of patient days	68,421	74,120	88,189	95,555	129,164	140,031	131,296	132,630	125,277	125,825	123,918
Cost per patient day	$1 49	$1 53	$1 53	$1 31	$1 24	$1 39	$1 68	$1 74	$2 24	$2 12	$2 10
Number patient and officer days.	107,731	112,868	123,541	131,644	169,388	186,242	177,294	179,808	172,878	174,039	174,893
Per capita per diem cost of raw food.	$0 31	$0 35	$0 34	$0 33	$0 35	$0 38	$0 44	$0 48	$0 53	$0 50	$0 50

OUT-PATIENT DEPARTMENT.

	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.
Cost exclusive of salaries but including rent	$6,794 09	$6,563 11	$5,574 79	$5,898 08	$6,177 89	$7,003 05	$7,477 86	$7,316 95	$8,044 11	$8,862 95	$6,840 08
Salaries	28,100 50	28,597 83	30,040 63	30,545 00	30,937 62	35,362 51	40,951 74	47,985 45	54,191 40	63,191 40	72,764 58

	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.
Number of patient-visits to out-patient department December 1 to December 1	7,377	8,504	8,750	9,975	9,868	12,381	10,070	10,613	9,642	8,229	9,065	9,728	10,345
Cost of each patient-visit to out-patient department	$0 96	$0 85	$0 85	$0 76	$0 77	$0 63	$0 79	$0 85	$1 06	$1 42	$1 43	$1 57	$1 61
Number of nurse-visits to patients' homes December 1 to December 1	39,220	48,179	51,873	54,778	51,320	53,605	56,079	57,674	53,448	59,727	60,310	61,912	65,307
Cost of each nurse-visit to patients' homes	$0 90	$0 60	$0 57	$0 55	$0 59	$0 58	$0 57	$0 62	$0 77	$0 78	$0 87	$0 99	$1 02
Number of cases carried by nurses on districts	4,259	4,188	5,017	6,170	6,067	6,378	6,743	7,275	6,904	6,554	6,142	6,207	6,251
Number in bed at time of nurse's first visit*	470	425	526	588	590	505	800	852	795	706	612	670	635

* These patients have been referred to the nurses by outside physicians and others. Patients who have been to the out-patient department are not included here.

Under chapter 637, Acts of 1912, the state allows a subsidy of $5 a week for those patients who have "tubercle bacilli in their sputum."

Under chapter 238, Acts of 1920, subsidy is allowed for patients who do not show bacilli in their sputum but who in the opinion of the sanatorium staff and of the State Department of Public Health have "consumption." From January 1, 1921, to January 1, 1922, subsidy was asked for 128 such patients. It was allowed for 108 and refused for 20.

No subsidy is allowed for patients who are employed and paid by the sanatorium, nor for those whose board at the sanatorium is paid by the state. When the board is paid for by another city or town, that city or town can apply for subsidy; Boston cannot.

The amount allowed for subsidy appearing in annual reports of the sanatorium is for the preceding calendar year and not for the year of the report.

The length of stay of the patients in the sanatorium at Mattapan for successive years is shown in the table below. Patients who had entered the sanatorium less than three weeks before the day in January this census was taken were not counted.

Number of Years at Sanatorium.	9 to 10 Years.	8 to 9 Years.	7 to 8 Years.	6 to 7 Years.	5 to 6 Years.	4 to 5 Years.	3 to 4 Years.	2 to 3 Years.	1 to 2 Years.	6 Months to 1 Year.	Less than 6 Months.
January, 1915.....	.....	.....	.....	.....	2	1	8	15	51	54	
January, 1916.....	.....	.....	.....	.....	2	7	10	28	49	38	121
January, 1917.....	.....	.....	.....	1	5	7	13	28	42	72	194
January, 1918.....	.....	.....	1	4	2	4	18	11	42	87	160
January, 1919.....	.....	.....	1	.....	4	12	6	26	63	57	160
January, 1920.....	.....	.....	.....	2	11	3	19	37	70	56	147
January, 1921.....	.....	.....	1	9	3	15	25	34	63	59	130
January, 1922.....	.....	1	5	3	9	18	21	38	49	48	130
January, 1923.....	1	5	3	6	14	11	25	25	57	52	109

The following table shows the admissions and discharges for several years at Mattapan:

	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.	1920.	1921.	1922.	1923.
n hospital February 1.....	183	185	198	213	262	291	403	386	369	377	352	352	339
dmitted.....	587	614	515	580	517	1,020	931	744	685	497	585	571	
Discharged alive.....	345	336	270	291	259	528	544	403	351	279	341	355	
Discharged dead.....	240	263	230	240	230	380	404	358	326	243	244	229	

OUT-PATIENT DEPARTMENT.

The out-patient department is the center of a most important part of the sanatorium's work. The work done at this clinic and by the nurses at the homes, who spread the gospel of right living, knowledge in regard to contagion, proper housing, food and cooking in the districts of the less educated, does more to eradicate tuberculosis than anything else.

The control of tuberculosis is as much an economic and social problem as a medical one, more a question of education and prevention than of treatment. It is more a question of sufficient family income, good housing, no over crowding, of employment, personal and home hygiene than of medical and nursing care *per se*. Much of this work falls on the nurses to do. They must give advice and instruction as to food, clothing, fresh air, rest, exercise, care of home, etc., not only as these concern the patient with active disease, but as much and often more for the benefit of the rest of the household, and they must see that the advice is followed. The proper care of the child and the preventing his developing active disease is vastly more important, produces far better results and is much cheaper than to try to cure the disease after it is once active. Bringing all the other members of the family to the clinic to have determined whether or not they are tuberculous is of the utmost importance and takes very much persuading by the nurse and a great deal of time. The present number of nurses is much too small to carry on this work of the out-patient department. The trustees believe there should be more nurses. The incidence of tuberculosis has declined in the last year, both as to the number of cases and the number of deaths. A large force of nurses would be a most important factor in forcing the amount of tuberculosis to diminish more.

The table below gives the total number of new and old cases treated at the day clinics of the out-patient department as well as the percentage of new positive cases by years since the beginning.

The day clinic is held four times a week.

YEAR.	Number New Cases.	Number Old Cases.	Totals.	Percentage Positive Cases. (New).
September 11, 1907, to February 1, 1908.	1,122	912	2,034	32.79
February 1, 1908, to February 1, 1909...	2,433	7,098	9,531	31.69
February 1, 1909, to February 1, 1910...	2,656	8,074	10,730	42.36
February 1, 1910, to February 1, 1911...	2,462	4,915	7,377	33.75
February 1, 1911, to February 1, 1912...	2,033	6,471	8,504	36.94
February 1, 1912, to February 1, 1913...	1,971	6,735	8,706	49.87
February 1, 1913, to February 1, 1914...	2,455	7,980	10,435	44.28
February 1, 1914, to February 1, 1915...	2,227	7,971	10,198	44.90
February 1, 1915, to February 1, 1916...	2,679	8,707	11,386	39.42
February 1, 1916, to February 1, 1917...	2,247	7,823	10,070	39.03
February 1, 1917, to February 1, 1918...	2,288	7,541	9,829	35.00
February 1, 1918, to February 1, 1919...	2,125	6,860	8,985	32.80
February 1, 1919, to February 1, 1920...	1,971	5,689	7,660	37.03
February 1, 1920, to February 1, 1921....	1,590	6,889	8,479	33.84
February 1, 1921, to February 1, 1922....	1,658	7,639	9,297	30.04
February 1, 1922, to February 1, 1923...	1,674	7,977	9,651	26.34
Totals.....	33,591	109,281	142,872	

The table below gives the total number of new and old cases treated at the evening clinics of the out-patient department as well as the percentage of new positive cases, by years since the beginning. The evening clinic is held once a week.

YEAR.	Number New Cases.	Number Old Cases.	Totals.	Percentage Positive Cases. (New).
June 13, 1913, to February 1. 1914.....	114	286	400	29.82
February 1, 1914, to February 1, 1915...	102	468	570	67.64
February 1, 1915, to February 1, 1916...	91	619	710	18.70
February 1, 1916, to February 1, 1917...	93	739	832	29.00
February 1, 1917, to February 1, 1918...	75	769	844	26.88
February 1, 1918, to February 1, 1919...	83	603	686	22.90
February 1, 1919, to February 1, 1920...	49	520	569	20.40
February 1, 1920, to February 1, 1921...	69	517	586	24.60
February 1, 1921, to February 1, 1922...	49	387	436	6.10
February 1, 1922, to February 1, 1923...	71	623	694	93.00

In January, 1923, notice was received that the building at 13 Dillaway street, where the out-patient department was, was to be taken down and the lease was terminated. A part of the building on Rutland street of the Boston Children's Friend Society was hired for temporary quarters. The City Government appropriated on March 20, 1923, $150,000 for land and for a new out-patient department building.

The budget for 1923–1924 has been submitted already.

Attention is called to the summary following the trustee's reports, to the reports made to the trustees by the chief-of-staff and by the superintendent, and to the financial reports which follow these.

On the last page of the report will be found directions in regard to the admission of patients, visiting hours, how to reach the sanatorium, and the days and hours for the out-patient clinics, etc.

Respectfully submitted,

John F. O'Brien, *Chairman,*
James J. Minot, *Secretary,*
Isabel F. Hyams,
Patrick A. Kearns,
Peter J. Donahue,
Susan C. Lyman,
Trustees Boston Sanatorium.

SUMMARY.

Sanatorium at Mattapan.

(Figures in parentheses are for 1922.)	1922.	1921.	1920.	1919.	1918.	1917.
Number of beds	422	422	422	422	422	408
Average daily number of patients	341	344	340	366	362	381
Total number admitted (adult, 515, child, 56)	571	585	497	685	744	931
Number admitted from Out-Patient Department	434	475	409	572	648	807
Total number discharged (adult, 529, child, 55)	584	585	522	677	761	948
Discharged "arrested" (adult, 20, child, 6)	26	48	22	16	38	58
Discharged "improved" (adult, 212, child 20)	232	149	171	230	227	333
Discharged "unimproved" (adult, 71, child, 8)	79	108	71	96	123	133
Nonpulmonary or nontubercular (adult, 14, child, 4)	18	36	15	9	15	20
Discharged "dead" (adult, 224, child, 5)	229	244	243	326	358	404
Discharged "alive" (adult, 305, child, 50)	355	341	279	351	388	544
Discharged "by advice"	130	159	115	76	112	220
Discharged "against advice"	126	107	91	104	124	160
Discharged "eloped"	99	75	73	171	152	164
Total cost, February 1 to February 1, capital expenses included	$282,169 54	$294,816 22	$289,005 12	$236,453 24	$232,924 28	$218,372 14
Paid into city treasury (state subsidy, board from cities, towns and state, etc.)	$78,084 31	$73,322 66	$92,945 68	$91,739 61	$86,720 59	$81,236 23
Number of patient days	123,918	125,825	125,277	132,630	131,296	140,031
Net cost of sanatorium to the city	$204,085 23	$221,493 56	$196,059 44	$144,713 63	$146,203 69	$137,135 91
Cost per patient day, capital expense excluded	$2.10	$2.12	$2.24	$1.74	$1.68	$1.39
Net cost per patient day to city, capital expense excluded	$1.47	$1.38	$1.49	$1.05	$1.02	$0.81
Cost of raw food per patient and officer day	$0.42	$0.50	$0.53	$0.48	$0.44	$0.38

OUT-PATIENT DEPARTMENT.

	1922.	1921.	1920.	1919.	1918.	1917.
Total number of visits, old and new, day and evening	10,345	9,733	8,479	7,660	8,985	9,829
Number of new patients	1,745	1,707	1,590	1,971	2,125	2,288
Per cent of new positive cases	25.66	28.88	33.84	37.03	32.80	35.00
Total number of nurses' visits	65,307	63,054	60,628	59,729	53,448	57,674
Number referred to State Sanatoria	309	367	434	519	472	539
Number admitted to State Sanatoria	257	310	217	408	288	35
Number referred to other hospitals	81	44	63	36	64	104
Number admitted to other hospitals	81	43	51	59	47	76
Number deaths of patients in districts under nurses' care	175	165	172	276	245	204
Total cost, February 1 to February 1	$79,604 66	$72,810 24	$62,262 83	$55,302 40	$48,429 60	$42,365 56
Paid into city treasury (sale of medicine)	$399 55	$385 10	$382 05	$420 05	$378 10	$365 15
Net cost to the city of Out-Patient Department	$79,205 11	$72,425 14	$61,880 78	$54,882 35	$48,051 50	$42,000 41
Cost per visit, patient to clinic	$1 61	$1 57	$1 31	$1 42	$1 06	$0 85
Cost per visit, nurse to home	$1 02	$0 99	$0 78	$0 78	$0 77	$0 62

Total deaths in Boston from pulmonary tuberculosis, January 1 to January 1	722	760	821	966	1,186	1,147
Number of deaths under the care of this sanatorium, February 1 to February 1	404	409	415	603	602	608

REPORT OF THE MEDICAL STAFF.

Boston, January 31, 1923.

To the Trustees of the Boston Sanatorium:

I beg to submit herewith the report of the medical staff of the Boston Sanatorium for the year ending January 31, 1923:

A. Sanatorium, Mattapan.

Only a few changes have been made in the sanatorium staff this year. In November, 1922, Dr. Oscar Schloss was appointed as consulting pediatrician to fill a vacancy made by the resignation of Dr. John L. Morse. Dr. B. Fried, who has recently come to America from Paris where he had training in the Pasteur Institute, was appointed July 1, 1922, as resident pathologist. Miss Katherine L. Alden, chief director of occupational therapy, resigned during the year. These resignations have been a great loss to the sanatorium. Miss Mildred Whedon was appointed September 1, 1922, as chief director of this department.

There has been continued evidence of the appreciation of the opportunities at the sanatorium for work on the part of young graduates in medicine. During the past year many more applications have been received from such young physicians than could receive appointments. With the exception of the spring months our quota of residents has been constantly full.

Clinical instructions to medical students from the Harvard and Tufts Medical Schools has been continued under the same arrangements as in previous years. The instruction is carried on without any hardship to the patients and it is gratifying to feel that the extraordinary clinical facilities of the sanatorium are utilized for the benefit of those taking training in medicine.

The work of the clinical laboratory grows year by year, both as regards the variety of tests employed and the total number of examinations made. During the year a total of 5,751 examinations were made. This is a considerable increase over the total number made last year, namely 4,334.

The special reports from the various departments at Mattapan are as follows:

Surgical Department.

The operative work at the Boston Sanatorium during the year 1922 has been of the routine type to which we have become accustomed during previous years. There has been the usual run of minor surgical cases, with an occasional empyema or acute appendicitis. The most difficult and unsatisfactory problem which the hospital presents from the surgical point of view continues to be the treatment of the cases of bone and joint tuberculosis which gravitate to our wards, usually after operation at one of the general hospitals of the city. These patients require fixation and special apparatus treatment for which we have no adequate provision; they present chronic sinuses and recurrent suppurations which tax the resources of the resident and nursing staffs. Fortunately we now have only a few of these cases at the hospital, although in the community at large there are many who stand in need of such special care. The equipment necessary for such special surgical work was fully discussed in last year's report. I again take the opportunity offered by this report to recommend that the Boston Sanatorium give consideration to the project of providing special care for cases of surgical and orthopedic tuberculosis.

Respectfully submitted,

A. EHRENFRIED, M. D.

Laryngological Department.

The report of the laryngological department of the Boston Sanatorium for the year ending January 31, 1923, is herewith submitted.

The laryngological work at Mattapan has increased greatly in volume during the past year. In addition to the usual methods employed in the treatment of laryngeal tuberculosis, we have been using instillations of chaulmoogra oil in all moderate and far advanced cases. The oil is used in a petroleum base with the addition of menthol, 2 grains to the ounce, beginning with a 10 per cent solution and increasing to 20 per cent solution. Instillation is made by means of a curved laryngeal syringe. One cubic centimeter is dripped upon the epiglottis, arytenoids and vocal cords, the last few drops going directly into the larynx. This treatment is carried out twice a week. The results from a palliative standpoint are very gratifying, as 85 per cent of the patients report absence of painful deglutition after two or three treatments. We feel that the oil has no curative value in laryngeal tuberculosis. The ease of administration, no cocaine being required, and the comfort of the patient following treatment seems to warrant a continuance of this method.

During the past year we have installed a case record system. Notes are made at each examination and treatment.

It is to be regretted that the changes in the house staff make it necessary to instruct new men every two months and at the time when they are becoming interested in this branch of the work.

The consultation clinic at the out-patient department is being maintained as usual and an increasing number of cases are referred for diagnosis.

Doctor Cline has continued to do good work in the department, and I wish to thank all connected with the hospital for the kind spirit of co-operation that has been shown during the past year.

Respectfully submitted,

Charles E. Shay, M. D.

Dental Department.

The dental department of the Boston Sanatorium is continuing its work as outlined in previous reports.

This year attention was concentrated on extraction of teeth, in order to eliminate every possible dental focus. Several cases were carefully followed, and while it cannot be stated positively that there was any definite physical improvement, nevertheless the patients all reported increased comfort and in some instances great improvement in appetite. A uniform record of physical improvement is probably due to the fact that most if not all of our cases were in well-advanced stages of the disease.

About 90 per cent of all new cases were suffering from badly decayed roots, abscessed teeth and pyorrhœa, and presented no evidence of even the most elementary dental care. These cases were given immediate attention as far as the general physical condition would permit and every effort made to impress upon them the importance of daily mouth hygiene. The response in some cases has been most encouraging. In general, however, by far the best results have been attained among the children where preventive dentistry is most important.

After the extraction of over 1,000 teeth from patients, most of whom were in advanced stages of tuberculosis, we have noticed no surgical complications other than the average post extraction suffering. This is contrary to most authorities who regard tuberculosis as a retarding factor in healing.

During the year two cases of unusual interest were observed; one a case of sialolithiasis (salivary calculus in Wharton's duct. Size, 27 millimeters greatest length; 10 millimeters greatest thickness, and resembling a cucumber in shape. Dry

weight 1.8 grams); and a case of a large hemangioma of the tongue. The former was published in the "Dental Cosmos," January, 1923. The latter is to be reported.

I wish here to express to you my appreciation of the many courtesies extended to me by the medical staff during the past year.

Respectfully submitted,

FREDERICK A. KEYES, D. M. D.

X-Ray Department.

During the year 1922, 657 house cases and 573 out-patients were examined in the X-ray department. This does not include a large number of fluoroscopic examinations and re-examinations of patients for differential study. An increasing number of bone cases is seen each year.

The hospital is still in need of a high voltage X-ray apparatus to initiate short wave therapy which has been recommended by some as curative not only of bone lesions but of pulmonic conditions as well.

Respectfully submitted,

FREDERICK W. O'BRIEN, M. D.

Pathological Department.

The needs for an almost complete new equipment of the pathological laboratory and autopsy room necessitated a considerable delay before any serious work could be undertaken. Through the co-operation of the executive staff of the hospital, however, the difficulties in the reorganization of the department have been gradually overcome and for the past few months I have been able to carry on several investigations.

During the past six months twenty autopsies have been done, all of which have been attended by students from the Harvard and Tufts Medical Schools. From the autopsy material many valuable museum specimens have been obtained and as soon as the necessary equipment is furnished these will be permanently mounted and preserved at the laboratory.

Two hundred and sixty compliment-fixation tests for tuberculosis have been done and it is my hope that this test as well as the Bordet-Wassermann test can be made on every case entering the sanatorium. Animal inoculation as a test for tuberculosis has not yet developed to the degree which seems desirable in an institution of this type but this method of diagnosis has become more frequently employed than ever previously.

A study of the occurrence of tubercle bacilli in the stools of tuberculous patients has been instituted and up to the present time about one hundred and thirty stools have been examined for this organism according to a special technic which I have

devised. The results of this study will be soon published. A further research is now in progress concerning the presence of the tuberculous antigens in the body fluids of tuberculous patients.

Respectfully submitted,

B. Fried, M. D.

Occupational Therapy Department.

The following is a report of the work done in the occupational therapy shop during the year 1922.

As my work here did not start until September 1, 1922, I can only report briefly — as transmitted to me — upon the work of the department previous to that date. My predecessor, Miss Alden, resigned July 1, leaving Miss Ray to conduct the work single-handed throughout the summer, during which time she was principally occupied in the execution of orders essential to maintaining the standard of the shop, and its output, among our patrons. The garden, conducted in connection with the shop, held the interest of a number of the patients, and supplied the hospital with flowers throughout the season.

In September the finished products of the shop, representing the work of the past three years, numbered 8,000 articles. During the past five months over 2,500 articles have been made, notwithstanding the fact that the patients have been limited to the making of only such a number as would bring them a compensation of $15 a month, whereas they have been known to receive as high as $25 in the past.

The shop contributed to nine private sales in and about Boston during the fall, as well as continually filling orders from the Bureau of Occupational Therapy at 443 Boylston street. The amount received from the Bureau for articles sold there during the month of December alone was $271.65.

Mrs. E. P. Adams of Dorchester has assisted us greatly in the disposing of finished articles by taking them to her home and holding small sales among her friends, without any profit to herself. She has already returned over $275 from sales made during the past two months. She has interested a number of other people in our work.

At a bazaar held at the Mechanics Building in Boston during the month of December we were afforded space for a booth, under our own management, for the sale of baskets. The sale gave us a splendid opportunity to dispose of a large quantity of baskets which had been left unsold from previous years. A tax of 15 per cent on the sales made during the last three days was exacted in return for the privilege of selling there. After deducting all expenses, the total receipts for the week amounted to over $375.

The total income received from all sales made during the past year was over $3,800.

Our needs for the coming year confine themselves chiefly to assistance in bookkeeping and to larger and more adequate facilities for dyeing our materials. Even with two aids working full time, as is now the case, the increase in the amount of work turned out by each patient has made it very difficult to handle all the bookkeeping necessary in recording the articles finished and sold. We have a man who cleans the shop regularly, runs errands, and assists in the teaching of the basketry. He is not competent, however, to do the bookkeeping, nor could we spare him from the shop if he were. The present accommodation afforded us for the dyeing of our material is very inadequate to the requirements of the shop. It would be very helpful if these two needs were supplied, and I trust they may receive the favorable consideration of the Board of Trustees.

Respectfully submitted,

MILDRED WHEDON.

Pavilion Wards for Adults.

There were during the year a total of 768 patients treated in these wards. This total includes 555 males and 213 females.

Table showing the total admissions and discharges during the year:

	Males.	Females.	Totals.
Number of patients February 1, 1922	145	49	194
Number of patients admitted during the year	410	164	574
Number of patients discharged during the year	418	157	575
Number of patients remaining January 31, 1923	137	56	193

This table shows a slight falling off in the number treated during the year and is far below the number treated in previous years.

Table showing diagnosis of all cases admitted during the year:

	Males.	Females.	Totals.
A. Stage I	10	6	16
B. Stage II	36	16	52
C. Stage III	344	134	478
D. Tuberculosis, nonpulmonary	16	6	22
E. Nontuberculous	4	2	6
Totals	410	164	574

The relative number of cases in the three stages has remained essentially the same as last year with the overwhelming predominance in favor of the third stage. It is interesting that so few nontuberculous cases should be admitted.

Table giving the sources of the 574 cases admitted during the year:

	Males.	Females.	Totals.
A. Out-patient department	298	124	422
B. Cottage wards	47	10	57
C. Other institutions, etc	55	23	78
D. Outside physicians	10	5	15
E. Born at Boston Sanatorium	.....	2	2
Totals	410	164	574

The chief interest in this table is the gratifying fact that "other institutions" are each year referring more cases to the Boston Sanatorium.

Table showing the disposition of all discharged cases:

	Males.	Females.	Totals.
A. Discharged dead	156	68	224
B. Discharged to home	109	54	163
C. Transferred to cottage wards	126	21	147
D. Transferred to state sanatoria	5	3	8
E. Transferred to miscellaneous institutions	22	9	31
F. Transferred to children's ward	.....	2	2
Totals	418	157	575

Table showing the average length of stay of all discharged cases from 1910 to 1923:

	Year 1910–11. (Days.)	Year 1911–12. (Days.)	Year 1912–13. (Days.)	Year 1913–14. (Days.)	Year 1914–15. (Days.)	Year 1915–16. (Days.)	Year 1916–17. (Days.)	Year 1917–18. (Days.)	Year 1918–19. (Days.)	Year 1919–20. (Days.)	Year 1920–21. (Days.)	Year 1921–22. (Days.)	Year 1922–23. (Days.)
All discharged cases	46	40	82	85	96	122	109	111	130	110	126	128	144
Discharged dead	45	36	85	87	88	133	118	135	128	137	174	185	191
Discharged to home	53	38	93	87	98	114	70	164	163	84	106	104	105
Discharged to other institutions	39	33	63	80	56	27	50	31	94	108	64	85	102

It is particularly interesting to note the almost regular and constant increase in the duration of stay year by year. It will be noted that the duration of the residence of all cases this year is greater than for any previous year. It would seem in general that this is a distinct advantage inasmuch as it must be interpreted as meaning that the chronic cases are remaining longer under close surveillance.

Table giving the condition of the patients at time of discharge:

	Males.	Females.	Totals.
Arrested	1	1	2
Improved	206	60	266
Unimproved	55	28	83
Dead	156	68	224

The chief interest in this table is the evidence that it gives as compared with previous years of the improvement shown by those discharged. This year a total of 266 were discharged as improved compared with 232 last year. Only 83 were discharged as unimproved as compared with 114 for the previous year.

Cottage Wards.

During the year the total number of cases treated in the cottage wards was 254, of whom 42 were women and 212 were men. This is an increase of 17 over the number treated last year.

The following table gives the figures for the total admissions and discharges during the year:

	Males.	Females.	Totals.
Number of patients February 1, 1922	94	21	115
Number of patients admitted during the year	118	21	139
Number of patients discharged during the year	126	26	152
Number of patients remaining January 31, 1923	76	16	92

Table giving the diagnosis at entrance of all cases admitted to the cottage wards:

	Males.	Females.	Totals.
Stage I	2	1	3
Stage II	11	4	15
Stage III	105	16	121
Totals	118	21	139

Table giving the disposition of all discharged cases:

	Males.	Females.	Totals
Home	74	15	89
Pavilion wards	47	10	57
Other institutions	5	1	6
Totals	126	26	152

Table showing the length of stay of all discharged cases:

	Males.	Females.
All discharged cases	200 days	203 days
Those discharged home	146 days	227 days
Those discharged to pavilion wards	334 days	123 days
Those discharged to other institutions	265 days	40 days

Table showing condition of patients at time of discharge:

	Males.	Females.	Totals.
Arrested	5	1	6
Improved	76	14	90
Unimproved	45	11	56
Totals	126	26	152

Children's Ward.

A total of 109 infants and children were treated in the children's ward during the year.

Table giving the figures with reference to the admission and discharge of patients in these wards:

	Males.	Females.	Totals.
Number of patients February 1, 1922	25	28	53
Number of patients admitted during the year	28	28	56
Number of patients discharged during the year	25	30	55
Number of paticnts remaining January 31, 1923	28	26	54

Table giving sources of all cases admitted:

	Males.	Females.	Totals.
Out-patient department	21	18	39
Pavilion wards	.....	2	2
Other institutions	6	6	12
Private physicians	1	2	3
Totals	28	28	56

Table giving the diagnosis of all cases at entrance:

	Males.	Females.	Totals.
Stage I	19	14	33
Stage II	6	7	13
Stage III	1	2	3
Tuberculosis, nonpulmonary	2	2	4
Nontuberculous	.....	3	3
Totals	28	28	56

These figures show a very distinct difference from those of the previous year. The percentage of first stage cases has remained essentially the same but the second stage cases have markedly increased while the third stage cases have fallen to three. There were only three nontuberculous cases treated.

Table giving disposition of all discharged cases:

	Males.	Females.	Totals.
A. Dead	2	3	5
B. Home	21	21	42
C. Other institutions	2	6	8
Totals	25	30	55

Table showing average length of stay of all discharged cases:

	Males.	Females.
A. All cases	378 days.	266 days.
B. Dead	1,352 days.	220 days.
C. Home	311 days.	354 days.
D. Other institutions	122 days.	53 days.

Table showing the figures with reference to the losses or gains in weight of all discharged cases:

	Males.	Females.	Totals.
A. Stationary	1	1	2
B. Gained	19	23	42
C. Lost	3	3	6
D. Unknown (dead)	2	3	5
Totals	25	30	55

Table showing condition of patients at time of discharge:

	Males.	Females.	Totals.
Arrested	9	9	18
Improved	11	13	24
Unimproved	3	5	8
Dead	2	3	5
Totals	25	30	55

B. OUT-PATIENT DEPARTMENT.

Day Clinic.

There have been no changes in the staff of the Out-Patient Department during the year.

Asthma Clinic.

One of the most gratifying developments at the Out-Patient Department during the past few years has been the asthma

clinic under Doctor Cronin. The following is a brief statement of the work done in this department:

The asthma clinic has been conducted each Wednesday during the year. The total number of visits made to this clinic was 3,309, or an average attendance each clinic day of 63. There were 103 new cases treated during the year, 32 of whom were found sensitive to some protein as demonstrated by the skin test. The results have been fully as satisfactory as in past years. The sensitive cases have been greatly benefited as have also the hay fever patients. The non-sensitive cases, many of them suffering from chronic bronchitis for years, have regularly attended the clinic for treatment with vaccine and have been relieved.

Respectfully submitted,

M. J. CRONIN, M. D.

During the year 1,674 new cases and 7,977 old cases, or a total of 9,651, were treated at the Out-Patient Department. The following table shows the total number of new and old cases and the percentage of positive cases year by year since the opening of the clinic in September, 1907:

YEAR.	Number New Cases.	Number Old Cases.	Totals.	Percentage Positive Cases (New).
September 11, 1907, to February 1, 1908.	1,122	912	2,034	32.79
February 1, 1908, to February 1, 1909...	2,433	7,098	9,531	31.69
February 1, 1909, to February 1, 1910...	2,656	8,074	10,730	42.36
February 1, 1910, to February 1, 1911...	2,462	4,915	7,377	33.75
February 1, 1911, to February 1, 1912...	2,033	6,471	8,504	36.94
February 1, 1912, to February 1, 1913...	1,971	6,735	8,706	49.87
February 1, 1913, to February 1, 1914...	2,455	7,980	10,435	44.28
February 1, 1914, to February 1, 1915...	2,227	7,971	10,198	44.90
February 1, 1915, to February 1, 1916...	2,679	8,707	11,386	39.42
February 1, 1916, to February 1, 1917...	2,247	7,823	10,070	39.03
February 1, 1917, to February 1, 1918...	2,288	7,541	9,829	35.00
February 1, 1918, to February 1, 1919...	2,125	6,860	8,985	32.80
February 1, 1919, to February 1, 1920...	1,971	5,689	7,660	37.03
February 1, 1920, to February 1, 1921...	1,590	6,889	8,479	33.84
February 1, 1921, to February 1, 1922...	1,658	7,639	9,297	30.04
February 1, 1922, to February 1, 1923...	1,674	7,977	9,651	26.34
Totals.....	33,591	109,281	142,872	

Last year it was noted that the total number of cases was the greatest treated since the year 1917 and 1918. It will be seen that this year the total number of cases again shows a material increase. The number of new cases has remained essentially the same, the increase being largely in the number of old cases visiting the clinic. The percentage of positive cases among the new patients is the lowest since the opening of the clinic in 1907. These facts would seem to indicate that the Out-Patient Department is following more carefully the old cases.

Table showing the attendance of old and new patients by months:

	Old.	New.	Totals.
February, 1922	543	101	644
March, 1922	771	193	964
April, 1922	690	175	865
May, 1922	765	174	939
June, 1922	605	161	766
July, 1922	607	134	741
August, 1922	552	107	659
September, 1922	655	122	777
October, 1922	684	120	804
November, 1922	802	134	936
December, 1922	615	96	711
January, 1923	688	157	845
Totals	7,977	1,674	9,651

Table giving diagnosis at entrance of all new cases, arranged according to age and sex:

	Adults.		Children.		Totals.
	Males.	Females.	Males.	Females.	
A. Tuberculosis	248	157	14	19	438
B. Suspected	120	52	32	23	227
C. Nontuberculous	255	252	223	273	1,003
D. Tuberculosis, nonpulmonary	1	1	.....	1	3
E. Insufficient records	2	.....	1	.....	3
Totals	626	462	270	316	1,674

Table giving the diagnosis of all children admitted to the clinic during the past fifteen years:

	Positive.	Per Cent.	Deferred and Negative.	Totals.
February 1, 1908, to January 31, 1909 . . .	87	9.46	833	920
February 1, 1909, to January 31, 1910 . . .	246	21.87	879	1,125
February 1, 1910, to January 31, 1911 . . .	87	9.91	791	878
February 1, 1911, to January 31, 1912 . . .	131	14.57	761	892
February 1, 1912, to January 31, 1913 . . .	266	32.01	565	831
February 1, 1913, to January 31, 1914 . . .	160	20.69	617	777
February 1, 1914, to January 31, 1915 . . .	150	20.57	575	729
February 1, 1915, to January 31, 1916 . . .	70	7.63	840	917
February 1, 1916, to January 31, 1917 . . .	53	7.34	669	722
February 1, 1917, to January 31, 1918 . . .	58	6.43	844	902
February 1, 1918, to January 31, 1919 . . .	33	4.26	742	775
February 1, 1919, to January 31, 1920 . . .	40	5.19	731	771
February 1, 1920, to January 31, 1921 . . .	26	4.38	567	593
February 1, 1921, to January 31, 1922 . . .	31	5.06	582	613
February 1, 1922, to January 31, 1923 . . .	34	5.70	551	585

Table showing the stage of the disease of all positive cases:

	Adults.		Children.		Totals.
	Males.	Females.	Males.	Females.	
Stage I	88	38	6	5	137
Stage II	96	77	6	12	191
Stage III	64	42	2	2	110
Tuberculosis, nonpulmonary	1	1	. . . . .	1	3
Totals	249	158	14	20	441

Table giving the disposition of all discharged cases:

	Males.	Females.	Totals.
Admitted to sanatorium	390	172	562
Discharged out of town	231	203	434
Patient refused to enter a hospital	44	40	84
Still on waiting list, January 31, 1923	15	9	24
Lost track of	. . . . .	. . . . .	80
Dead	98	77	175
Totals	778	501	1,359

Evening Clinic.

During the year there were 623 old patients and 71 new patients, making a total of 694. Of the old patients 458 were males and 165 females, and of the new patients 49 were males and 22 females. These figures show the surprising fact that the total attendance during the year has increased from 436 last year to 694 for the present year.

Table giving the attendance by months of old and new cases:

	Old.	New.	Total.	Average Attendance.
February, 1922	30	.....	30	7.5
March, 1922	38	6	44	11.0
April, 1922	42	5	47	11.7
May, 1922	49	6	55	11.0
June, 1922	35	12	47	11.7
July, 1922	62	8	70	14.0
August, 1922	62	5	67	16.7
September, 1922	48	8	56	18.6
October, 1922	80	8	88	17.7
November, 1922	71	7	78	19.5
December, 1922	48	3	51	17.0
January, 1923	58	3	61	15.2
Totals	623	71	694	

Table giving the diagnosis at entrance of all new cases:

	Adults.		Children.		Totals.
	Males.	Females.	Males.	Females.	
A. Tuberculosis	7	4	.....	.....	11
B. Suspected	5	.....	.....	.....	5
C. Nontuberculous	38	15	1	1	55
Totals	50	19	1	1	71

Table showing the stage of disease at entrance of all positive cases:

	Adults.		Totals.
	Males.	Females.	
Stage I	3	2	5
Stage II	4	.....	4
Stage III	.....	2	2
Totals	7	4	11

Table showing the number of cases as well as the average attendance since the opening of the clinic in 1913:

	Number New Cases.	Number Old Cases.	Total.	Average Attendance.	Number Positive New Cases.
June 16, 1913, to January 31, 1914	114	286	400	13	34
February 1, 1914, to January 31, 1915	102	468	570	11	69
February 1, 1915, to January 31, 1916	91	619	710	14	17
February 1, 1916, to January 31, 1917	93	739	832	16	27
February 1, 1917, to January 31, 1918	75	769	844	17	20
February 1, 1918, to January 31, 1919	83	603	686	14	19
February 1, 1919, to January 31, 1920	49	520	569	11	10
February 1, 1920, to January 31, 1921	69	517	586	12	17
February 1, 1921, to January 31, 1922	49	387	436	9	3
February 1, 1922, to January 31, 1923	71	623	694	14	66
Totals	796	5,531	6,327	.....	282

Respectfully submitted,

EDWIN A. LOCKE, M. D.
Chief of Staff.

REPORT OF THE SUPERINTENDENT.

February 8, 1923.

To the Trustees of the Boston Sanatorium:

The report for the year 1922 is herewith presented.

There were 9,651 patient-visits at the day clinic at the Out-Patient Department during the past year. One thousand six hundred and seventy-four of these were new cases. There were 694 patient-visits at the night clinic, of which 71 were new cases.

On February 1, 1922, there were 352 patients in the wards of the Sanatorium at Mattapan. During the year there were 571 patients admitted and 584 were discharged. The number of deaths during the year was 229.

In the children's ward February 1, 1922, there were 53 children. There were 56 admissions to this ward during the year. Fifty-five children were discharged, of whom 5 died.

The work of demolishing the building now used as an out-patient department at No. 13 Dillaway street is scheduled to start on March 16, 1923. Therefore, the erection of a new out-patient building, adequately equipped for the important work performed by the doctors and nurses of this department, should be given immediate consideration.

The patients thoroughly enjoyed the many entertainments given at the day camp building. These were arranged, for the most part, by the chaplain, Rev. Francis Burke. Father Burke became chaplain on July 26, 1918. Through his constant attention and untiring efforts, as a faithful and effective chaplain, he won the respect and admiration of the patients, officers and nurses. It was with great regret that his resignation was accepted on December 31, 1922. Father Burke has been succeeded by Rev. William Grant.

Since the resident pathologist was appointed the laboratory has been more fully equipped and consequently excellent results are anticipated.

The combined efforts of the newly appointed social worker at the Sanatorium and the special investigator

at the Out-Patient Department will, no doubt, insure a very careful study in follow-up work on discharge cases.

The Sanatorium has been greatly improved by painting the wards and the domestic building. Many improvements, too numerous to mention, have been done very efficiently by the hospital force.

The housing of the employees of this department still furnishes a difficult problem. The sleeping quarters of the nurses are located in the domestic building. Therefore, it is necessary to lease a house outside the hospital grounds to accommodate the laundresses. As stated in previous reports, the domestic building offers no accommodations for recreational purposes. It is because of this and the fact that we are compelled to lease the house already referred to that I again recommend the erection of a nurses' home.

I wish to commend the employees and officers of the department for the unusual interest taken in the work and for the faithful services rendered during the year.

In closing, I desire to express my appreciation to the Board of Trustees for the invaluable advice given me throughout the year.

Respectfully submitted,

Arthur J. White,
Superintendent.

REPORT OF THE SUPERINTENDENT OF NURSES TO THE OUT-PATIENT DEPARTMENT.

To Arthur J. White, M. D., *Superintendent:*

During the year ending January 31, 1923, 6,251 patients were visited on the district, of this number 635 were referred for bed care in their homes or hospital care and were too ill to report to the clinic.

The total number of visits made by the nurses on the district for the year was 65,307. Five thousand nine hundred sixty of these visits were to patients of private physicians, investigation being made in these cases for the survey of the Boston Health Department.

There were 175 deaths among the patients cared for at their homes. The time lost by the nurses through illness was small, about 127 days in all, less than an average of four days for each nurse. During the summer three substitutes were employed to allow for nurses' vacations and their work was most satisfactory. During the year one nurse resigned and a nurse, who had substituted, was appointed in her place.

As in past years many visitors, who were contemplating doing tuberculosis work, have come to the Out-Patient Department to observe the clinic and visit with the nurses on the district, besides the nurses from the Community Nurses' Association post-graduate class who come for a short time as part of their work at Simmons College.

During the year the Boston Tuberculosis Association changed the Prendergast Camp from a camp for men's to a children's camp or preventorium. Most of the children admitted were from this department. There have been carried and kept under observation all Boston men who were returned to their homes from the camp and so far these patients have done very well at home.

The asthma clinic throughout the year has been well attended.

The appointment of a special investigator to look up the lost cases, is a great saving of time to the nurses.

The hospital and sanatorium waiting list in the last year has been very short. Each year the number of patients requiring immediate hospital care seems to be fewer than the year before.

The problem of "no work" has not been very apparent among our patients, this may be accounted for largely by the adequate aid given by the Overseers of the Poor.

This last year appeals to different charitable agencies and individuals have met with excellent results. The Out-Patient Department is very much indebted to the American Invalid Aid Society of America, the Needlework Guild of America, the First Parish Church of Dorchester, various St. Vincent de Paul Conferences, the Woman's Christian Temperance Union, the Young Men's Christian Union, Fruit and Flower Mission, the Boston *American* Christmas Basket Fund, the Lend-a-Hand Society, Fragment Society, St. Cecilia's Guild and personal friends of Doctor Floyd and the nurses. The hearty co-operation of the Family Welfare Union, the Jewish Welfare Union and the Boston Provident Association has been given.

In closing I wish to thank the doctors for their many courtesies and nurses for their assistance and co-operation.

Respectfully submitted,

Zepha M. Gardner,
Superintendent of Nurses.

FINANCIAL REPORT.

SCHEDULE I.

Detail of Expenses.

TRUSTEES' OFFICE.

Administration Expenses.

Clerk	$1,561 97	
Stationery	36 83	
Messenger and telegraph	24 70	
Transportation	58 85	
Total office administration expenses		$1,682 35

HOSPITAL.

Administration Expenses.

Salaries, officers and clerks	$15,035 56	
Printing	839 58	
Transportation	391 65	
Cartage	401 87	
Telephone	710 14	
Stationery	484 29	
Postage	175 20	
Total hospital administration expenses		18,038 29
Grand total administration expenses		$19,720 64

Professional Care of Patients.

Salaries and wages		$45,467 69	
Care of nurses		90 00	
Medical supplies		4,117 26	
Apparatus and instruments		795 00	
Laboratory:			
Salaries	$2,264 40		
Supplies	739 65		
		3,004 05	
Disinfectants		190 49	
Religious services		2,871 66	
X-ray:			
Salaries	$1,676 31		
Supplies	1,674 45		
		3,350 76	
Music, concerts, etc.		485 39	
Occupational therapy:			
Salaries	$2,219 58		
Supplies	7,419 05		
		9,638 63	
Total professional care of patients			70,010 93
Carried forward			$89,731 57

Brought forward			$89,731 57

DEPARTMENT EXPENSES.

Housekeeping:			
Salaries	$16,487 34		
Supplies	7,762 29		
		$24,249 63	
Kitchen:			
Salaries	$3,963 53		
Bakery:			
Salaries	1,248 29		
		5,211 82	
Steward's department:			
Meat and fish	$23,186 60		
Milk	17,231 23		
Groceries	14,897 26		
Butter, cheese and eggs	11,043 09		
Crackers and bread	508 23		
Fruits and vegetables	1,028 82		
		67,895 23	
Laundry:			
Salaries	$7,792 75		
Supplies	637 39		
		8,430 14	
Farm:			
Salaries	$5,009 68		
Supplies	2,276 85		
		7,286 53	
Ambulance and automobile:			
Salaries	$1,408 50		
Supplies	1,041 16		
		2,449 66	
Total department expenses			115,523 01

NOTE.— $5,853.25 farm cost was "food," but is not entered here in the steward's department.

GENERAL HOUSE AND PROPERTY EXPENSES.

Maintenance, machinery and tools:			
Salaries	$19,492 75		
Supplies	697 12		
		$20,189 87	
Maintenance, real estate		8,555 04	
Electric lighting and supplies		4,597 60	
Fuel		22,344 77	
Gas		1,294 82	
Ice		237 41	
Oil and waste		243 15	
Rents		728 80	
Cleaning		399 00	
Total general house and property expenses			58,590 46
Total operating expenses			$263,845 04

CAPITAL EXPENSES.

Painting	$11,733 00	
Steam main	3,819 00	
Carried forward	$15,552 00	$263,845 04

Brought forward	$15,552 00	$263,845 04
Touring car	1,591 50	
Alterations and repairs, steam system	419 00	
Steel pressure tank, Ward F	295 00	
Designing specifications for steam main	167 00	
Curtains for Open-Air School	300 00	
Total capital expenses for Mattapan		18,324 50
Total capital and operating expenses		$282,169 54

OUT-PATIENT DEPARTMENT.

ADMINISTRATION EXPENSES.

Salaries, officers and clerks	$3,174 93	
Transportation	2,001 25	
Stationery	859 68	
Telephone	486 14	
Postage	124 55	
Messenger and telegraph	15 30	
Total administration expenses		$6,661 85

PROFESSIONAL CARE OF PATIENTS.

Salaries and wages	$62,966 50	
Medical supplies	1,321 68	
Apparatus and instruments	258 52	
Equipment for nurses	6 15	
Total professional care of patients		64,552 85

DEPARTMENT EXPENSES.

Housekeeping:			
Salaries	$4,211 50		
Supplies	538 98		
		$4,750 48	
Laundry:			
Salaries	$250 00		
Supplies	50 00		
		300 00	
Total department expenses			5,050 48

GENERAL HOUSE AND PROPERTY EXPENSES.

Rents	$2,161 65	
Gas	211 49	
Fuel	554 45	
Ice	58 30	
Maintenance, real estate	347 59	
Electric lighting	6 00	
Total general house and property expenses		3,339 48
Total operating expenses for Out-Patient Department		$79,604 66

TOTALS.

Grand total capital expenses	$18,324 50
Grand total operating expenses	343,449 70
Grand total capital and operating expenses	$361,774 20
Total capital and operating expenses	$361,774 20
Deduct money paid to City Treasurer, Schedule III.	78,483 86
Net	$283,290 34

SCHEDULE II.

Summary of Expenditures.		Appropriation and Income.	
Administration expenses	$26,382 49	Appropriation	$376,902 44
Professional care of patients	134,563 78		
Department expenses	120,573 49		
General house and property expenses	61,929 94		
Total operating expenses	$343,449 70		
Capital expenses	18,324 50		
Balance unexpended	15,128 24		
Total	$376,902 44	Total	$376,902 44

SCHEDULE III.

General Revenue, 1921–1922.

Board of patients:	
Commonwealth of Massachusetts, subsidy*	$44,458 37
State Department of Public Welfare, Div. of Aid and Relief,	26,173 28
Board of Health, Worcester, Mass.	481 25
Board of Health, Watertown, Mass.	175 00
Board of Health, Cambridge, Mass.	46 50
Board of Health, Hingham, Mass.	1,043 57
Board of Health, Somerville, Mass.	279 00
Board of Health, Chelsea, Mass.	336 00
Board of Health, Hudson, Mass.	234 50
Board of Health, Everett, Mass.	215 25
Board of Health, Lee, Mass.	159 25
Board of Health, Southbridge, Mass.	563 50
Board of Health, Pittsfield, Mass.	155 75
Board of Health, Stoughton, Mass.	61 25
Board of Health, Lawrence, Mass.	21 00
Patients' board	203 75
Bones and grease	100 83
Commission on telephone, Milton 72205	16 44
Sale of horse	18 00
Sale of medicines	399 55
Sale of junk and paper, coal penalty	18 44
Sale of occupational therapy articles	3,323 38
Total	$78,483 86

* Acts of 1912, chapter 637.

NOTE.— The above sum was paid into the city treasury and is not credited to the hospital.

SCHEDULE IV.

SUSAN H. LEEDS BEQUEST.

Balance February 1, 1921	$1,346 51	
Income	456 88	
		$1,803 39
Balance†		$1,803 39

TABLES SHOWING COST PER PATIENT PER DAY IN THE SEVERAL DEPARTMENTS.

HOSPITAL AT MATTAPAN.

Pavilion wards:		
General operating expenses	$204,019 60	
Proportion of administration expenses	11,977 42	
		$215,997 02
Cottage wards:		
General operating expenses	$41,787 15	
Proportion of administration expenses	2,453 21	
		44,240 36
Total		$260,237 38
Total patient days		123,918
Cost per patient day		$2 10
Net cost to city per patient day		$1 47

TABLE SHOWING COST OF PROVISIONS PER PERSON PER DAY.

Total cost of provisions at Mattapan*	$73,748 48
Total patient and officer days	174,893
Cost of raw food per person per day	$0 42

OUT-PATIENT DEPARTMENT.

Clinical Patients.

General operating expenses	$15,920 93
Proportion of administration expenses	721 53
Total operating expenses	$16,642 46
Total patients' visits	10,345
Cost per patient visit	$1 61

Home Visiting and Nursing.

General operating expenses	$63,683 73
Proportion of administration expenses	2,886 13
Total operating expenses	$66,569 86
Total home visits	65,307
Cost per visit	$1 02

* $5,853.25 of farm cost is included here as food cost.
† Balance carried to next year.

FINANCIAL REPORT ARRANGED ACCORDING TO BUDGET ITEMS.

Group and Items.	Original Appropriation.	Transfers to.	Transfers from.	Total Net Appropriation.	Total Expenditures.	Balance Unexpended.	1921-22 Total Expenditures.
A. Personal Service.							
1. Permanent employees	$207,999 44	$2,050 50	$8,884 30	$200,965 64	$192,374 77	$8,590 87	**$175,326 28**
2. Temporary employees	2,000 00	1,701 30	.....	3,901 30	3,421 67	479 63	**2,079 75**
3. Unassigned	500 00	.....	.....	500 00	446 00	54 00	**433 00**
B. Service Other than Personal.							
1. Printing and binding	50 00	.....	.....	50 00	26 45	23 55	**245 45**
2. Postage	225 00	50 00	.....	275 00	273 30	1 70	**219 81**
3. Advertising and posting	20 00	.....	.....	20 00	17 55	2 45	**15 90**
4. Transportation of persons	2,200 00	400 00	.....	2,600 00	2,440 35	159 65	**2,185 97**
5. Cartage and freight	500 00	.....	.....	500 00	401 87	98 13	**509 14**
6. Hire of teams and auto trucks	100 00	.....	.....	100 00	99 00	1 00	**276 00**
8. Light and power	5,000 00	.....	.....	5,000 00	3,754 88	1,245 12	**4,806 55**
10. Rent, taxes and water	3,031 00	.....	.....	3,031 00	2,805 45	225 55	**2,901 00**
13. Communication	1,300 00	.....	.....	1,300 00	1,242 08	57 92	**1,297 66**
14. Motor vehicle repairs and care	200 00	.....	.....	200 00	149 04	50 96	**58 00**
15. Motorless vehicle repairs	100 00	.....	.....	100 00	60 00	40 00	**85 00**
17. Care of persons	390 00	.....	.....	390 00	90 00	300 00	**782 15**
18. Cleaning	532 00	.....	.....	532 00	399 00	133 00	**672 00**
23. Veterinary	30 00	23 00	.....	53 00	53 00	.....	**24 00**
24. Blacksmith	25 00	.....	.....	25 00	2 40	22 60	—
Carried forward	$224,202 44	$4,224 80	$8,884 30	$219,542 94	$208,056 81	$11,486 13	**$191,917 66**

FINANCIAL REPORT ARRANGED ACCORDING TO BUDGET ITEMS.— *Concluded.*

Group and Item.	Original Appropriation.	Transfers to.	Transfers from.	Total Net Appropriation.	Total Expenditures.	Balance Unexpended.	1921-22 Total Expenditures.
Brought forward	$224,202 44	$4,224 80	$8,884 30	$219,542 94	$208,056 81	$11,486 13	$191,917 66
28. Expert and architect	500 00	.....	.....	500 00	267 00	233 00	1,096 91
31. Extermination of insects	300 00	.....	.....	300 00	300 00	.....	300 00
35. Fees, service of venires, etc	45 00	.....	.....	45 00	24 50	20 50	33 00
36. Boiler inspection	15 00	.....	.....	15 00	15 00	.....	15 00
37. Photographic and blueprinting	50 00	.....	.....	50 00	.....	50 00	8 47
39. General plant	22,400 00	1,000 00	.....	23,400 00	22,876 41	523 59	24,359 97
40. Harness, etc., repairs	35 00	.....	.....	35 00	16 50	18 50	35 00
41. Horseshoeing and clipping	160 00	.....	.....	160 00	109 45	50 55	153 50
42. Music, concerts, etc	500 00	.....	.....	500 00	499 89	11	399 80
C. Equipment.							
2. Machinery	.....	.....	.....	.....	.....	.....	116 79
3. Electrical	50 00	.....	.....	50 00	45 56	4 44	143 82
4. Motor vehicle	2,025 00	.....	.....	2,025 00	2,023 72	1 28	3,470 63
5. Motorless vehicles	355 00	.....	.....	355 00	350 20	4 80	65 45
6. Stable	35 00	.....	.....	35 00	20 10	14 90	35 00
7. Furniture and fittings	3,500 00	.....	.....	3,500 00	3,349 18	150 82	4,490 70
8. Educational and recreational	50 00	.....	.....	50 00	45 00	5 00	48 00
9. Office	.....	127 50	.....	127 50	125 53	1 97	109 35
10. Library	200 00	.....	.....	200 00	166 60	33 40	149 45
12. Medical, surgical, laboratory	1,000 00	.....	.....	1,000 00	797 89	202 11	2,796 38
13. Tools and instruments	400 00	.....	.....	400 00	287 58	112 42	748 07

14. Live stock	250 00	150 00	.....	400 00	285 58	114 42	—
16. Wearing apparel	1,700 00	.....	.....	1,700 00	1,449 37	250 63	**1,719 82**
D. SUPPLIES.							
1. Office	2,300 00	127 50	127 50	2,300 00	1,957 35	342 65	**2,170 54**
2. Food and ice	70,000 00	.....	1,542 64	68,457 36	67,892 13	565 23	**78,998 27**
3. Fuel	22,900 00	1,534 17	.....	24,434 17	24,434 17	.....	**28,915 35**
4. Forage and animal	800 00	.....	.....	800 00	752 12	47 88	**2,139 55**
5. Medical, surgical, laboratory	7,250 00	.....	.....	7,250 00	7,246 06	3 94	**7,497 75**
6. Library	50 00	.....	.....	50 00	47 87	2 13	**20 50**
8. Laundry, cleaning, toilet	2,800 00	.....	.....	2,800 00	2,468 26	331 74	**2,696 02**
9. Educational and recreational	75 00	.....	.....	75 00	74 68	32	**74 78**
10. Agricultural	500 00	.....	.....	500 00	445 84	54 16	**849 01**
11. Motor vehicle	500 00	.....	.....	500 00	404 72	95 28	**443 72**
13. Chemicals and disinfectants	340 00	157 00	.....	497 00	496 22	78	**441 70**
16. General plant	1,100 00	.....	.....	1,100 00	950 75	149 25	**1,099 64**
E. MATERIALS.							
1. Building	2,500 00	.....	.....	2,500 00	2,486 37	13 63	**2,997 45**
9. Machinery	665 00	.....	.....	665 00	638 80	26 20	**848 29**
10. Electrical	450 00	325 00	.....	775 00	774 80	20	**474 77**
13. General plant	900 00	.....	.....	900 00	764 97	135 03	**979 61**
F. SPECIAL ITEMS.							
13. Industries	5,000 00	2,500 00	.....	7,500 00	7,418 75	81 25	**3,982 52**
G. INCIDENTAL EXPENDITURES TO COVER CONTINGENCIES OTHER THAN PERSONAL SERVICES.							
2. Special investigations	1,000 00	408 47	.....	1,408 47	1,408 47	.....	**784 27**
Totals	$376,902 44	$10,554 44	$10,554 44	$376,902 44	$361,774 20	$15,128 24	**$367,626 51**

FINANCIAL REPORT.

SPECIAL ACCOUNT.

[FOR THE PURPOSE OF ADJUSTING THE ACCOUNTS OF THE CITY TO ACCRUE THE LIABILITIES TO JANUARY 31, 1922, INCLUSIVE.]

SCHEDULE I.

Detail of Expenses.

TRUSTEES' OFFICE.

ADMINISTRATION EXPENSES.

Clerk	$112 50	
Stationery	1 00	
Total office administration expenses		$113 50

HOSPITAL.

ADMINISTRATION EXPENSES.

Salaries, officers and clerks	$1,166 66	
Printing	510 00	
Cartage	42 40	
Telephone	114 40	
Stationery	298 35	
Postage	113 92	
Total hospital administration expenses		2,245 73
Grand total administration expenses		$2,359 23

PROFESSIONAL CARE OF PATIENTS.

Salaries and wages		$3,653 82	
Care of nurses		132 84	
Medical supplies		1,167 42	
Apparatus and instruments		15 93	
Laboratory:			
Salaries		91 67	
Disinfectants		9 60	
Religious services		38 33	
X-ray:			
Salaries	$122 33		
Supplies	923 48		
		1,045 81	
Music, concerts, etc.		152 05	
Occupational therapy:			
Salaries	$152 08		
Supplies	716 46		
		868 54	
Total professional care of patients			7,176 01
Carried forward			$9,535 24

Brought forward			$9,535 24

DEPARTMENT EXPENSES.

Housekeeping:			
Salaries	$1,230 66		
Supplies	1,692 70		
		$2,923 36	
Kitchen:			
Salaries	$308 58		
Bakery:			
Salaries	91 67		
		400 25	
Steward's department:			
Meat and fish	$1,880 23		
Milk	3,476 19		
Groceries	247 81		
Butter, cheese and eggs	1,241 12		
Crackers and bread	60 03		
Fruits and vegetables	29 97		
		6,935 35	
Laundry:			
Salaries	$665 33		
Supplies	3 90		
		669 23	
Farm:			
Salaries	$383 33		
Supplies	41 58		
		424 91	
Ambulance and automobile:			
Salaries		18 00	
Total department expenses			11,371 10

GENERAL HOUSE AND PROPERTY EXPENSES.

Maintenance, machinery and tools:			
Salaries	$537 34		
Supplies	113 21		
		$650 55	
Maintenance, real estate		469 99	
Electric lighting and supplies		931 24	
Fuel		4,720 00	
Gas		241 21	
Ice		114 94	
Oil and waste		66 77	
Rents		120 00	
Cleaning		133 00	
Total general house and property expenses			7,447 70
Total operating expenses			$28,354 04

CAPITAL EXPENSES.

Alterations and repairs, steam system		$547 38	
Total capital expenses for Mattapan			547 38
Total capital and operating expenses			$28,901 42

OUT-PATIENT DEPARTMENT.

Administration Expenses.

Salaries, officers and clerks	$241 66	
Transportation	45 05	
Telephone	60 04	
Total administration expenses		$346 75

Professional Care of Patients.

Salaries and wages	$4,869 40	
Medical supplies	70 35	
Equipment for nurses	10 65	
Total professional care of patients		4,950 40

Department Expenses.

Housekeeping:		
Salaries	$343 00	
Total department expenses		343 00

General House and Property Expenses.

Rents	$363 50	
Gas	51 34	
Fuel	85 69	
Ice	17 10	
Maintenance, real estate	85 50	
Total general house and property expenses		603 13
Total operating expenses for Out-Patient Department		$6,243 28

TOTALS.

Grand total capital expenses	$547 38
Grand total operating expenses	34,597 32
Grand total capital and operating expenses	$35,144 70
Total capital and operating expenses	$35,144 70
Net	$35,144 70

SCHEDULE II.

Summary of Expenditures.

Administration expenses	$2,705 98
Professional care of patients	12,126 41
Department expenses	11,714 10
General house and property expenses	8,050 83
Total operating expenses	$34,597 32
Capital expenses	547 38
Total	$35,144 70

SPECIAL ACCOUNT.

FINANCIAL REPORT ARRANGED ACCORDING TO BUDGET ITEMS.

Group and Item.	Original Appropriation.	Transfers to.	Transfers from.	Total Net Appropriation.	Total Expenditures.	Balance Unexpended.	1921–22 Total Expenditures.
A. Personal Service.							
1. Permanent employees	.....	.....	.....	.....	$13,881 03	.....	
2. Temporary employees	.....	.....	.....	.....	73 33	.....	
3. Unassigned	.....	.....	.....	.....	.....	.....	
B. Service Other than Personal.							
1. Printing and binding	.....	.....	.....	.....	.....	.....	
2. Postage	.....	.....	.....	.....	113 92	.....	
3. Advertising and posting	.....	.....	.....	.....	.....	.....	
4. Transportation of persons	.....	.....	.....	.....	45 05	.....	
5. Cartage and freight	.....	.....	.....	.....	42 40	.....	
6. Hire of teams and auto trucks	.....	.....	.....	.....	.....	.....	
8. Light and power	.....	.....	.....	.....	803 17	.....	
10. Rent, taxes and water	.....	.....	.....	.....	483 50	.....	
13. Communication	.....	.....	.....	.....	174 44	.....	
14. Motor vehicle repairs and care	.....	.....	.....	.....	.....	.....	
15. Motorless vehicle repairs	.....	.....	.....	.....	6 50	.....	
17. Care of persons	.....	.....	.....	.....	132 84	.....	
18. Cleaning	.....	.....	.....	.....	133 00	.....	
23. Veterinary	.....	.....	.....	.....	.....	.....	
24. Blacksmith	.....	.....	.....	.....	21 50	.....	
Carried forward	.....	.....	.....	.....	$15,910 68	.....	

FINANCIAL REPORT ARRANGED ACCORDING TO BUDGET ITEMS.—*Concluded.*

GROUP AND ITEM.	Original Appropriation.	Transfers to.	Transfers from.	Total Net Appropriation.	Total Expenditures.	Balance Unexpended.	1921–22 Total Expenditures.
Brought forward					$15,910 68		
28. Expert and architect							
31. Extermination of insects							
35. Fees, service of venires, etc					10 00		
36. Boiler inspection							
37. Photographic and blueprinting							
39. General plant					768 63		
40. Harness, etc., repairs							
41. Horseshoeing and clipping					8 50		
42. Music, concerts, etc					152 05		
C. EQUIPMENT.							
2. Machinery							
3. Electrical							
4. Motor vehicle							
5. Motorless vehicles							
6. Stable							
7. Furniture and fittings					1,094 80		
8. Educational and recreational							
9. Office							
10. Library					9 70		
12. Medical, surgical, laboratory					10 35		
13. Tools and instruments					107 62		

14. Live stock						
16. Wearing apparel					293 79	
D. SUPPLIES.						
1. Office					804 35	
2. Food and ice					6,952 45	
3. Fuel					5,098 24	
4. Forage and animal						
5. Medical, surgical, laboratory					1,915 55	
6. Library					4 00	
8. Laundry, cleaning, toilet					238 45	
9. Educational and recreational						
10. Agricultural						
11. Motor vehicle						
13. Chemicals and disinfectants					124 54	
16. General plant					225 06	
E. MATERIALS.						
1. Building					418 60	
9. Machinery					22 88	
10. Electrical					128 07	
13. General plant					21 78	
F. SPECIAL ITEMS.						
13. Industries					716 46	
G. INCIDENTAL EXPENDITURES TO COVER CONTINGENCIES OTHER THAN PERSONAL SERVICES.						
2. Special investigations					108 15	
Totals					$35,144 70	

CITY OF BOSTON.

BOSTON SANATORIUM.

Trustees' Office, 1001 City Hall Annex.

BOARD OF TRUSTEES.

DR. JOHN F. O'BRIEN, *Chairman*, term expires April 30, 1923.
DR. JAMES J. MINOT, *Secretary*, term expires April 30, 1925.
ISABEL F. HYAMS, term expires April 30, 1924.
PATRICK A. KEARNS, term expires April 30, 1926.
PETER J. DONAGHUE, term expires April 30, 1923.
SUSAN C. LYMAN, term expires April 30, 1925.

SANATORIUM, RIVER STREET, MATTAPAN.

Superintendent.
ARTHUR J. WHITE, M. D.

VISITING MEDICAL STAFF.

Chief of Staff.
EDWIN A. LOCKE, M. D.

First Assistant.
TIMOTHY J. MURPHY, M. D.

Pathologist.
WILLIAM T. COUNCILMAN, M. D.

Surgical Assistant.
ALBERT EHRENFRIED, M. D.

Ophthalmological Assistant.
SAMUEL J. MCDONALD, M. D.

Laryngological Assistants.
CHARLES E. SHAY, M. D.
SAMUEL CLINE, M. D.

Roentgenologist.
FREDERICK W. O'BRIEN, M. D.

Assistant Physician for Diseases of Children.
——— ———, M. D.

Visiting Dental Surgeon.
FREDERICK A. KEYES, D. M. D.

Chief Director of Occupational Therapy.
MILDRED WHEDON.

Director of Occupational Therapy.
MARY C. RAY.

RESIDENT MEDICAL STAFF.

Resident Medical Officer.
FRANK H. HUNT, M. D.

Assistant Resident Medical Officers.
Served in 1922–23. [Four Positions.]
BENEDICT LANDRY, M. D.
PHILIP W. BLAKE, M. D.
LAUREN H. GOLDSMITH, M. D.
HENRY L. WEYLER, M. D.
JOSEPH GOLDMAN, M. D.
HORACE P. STIMSON, M. D.
DOUGLAS BOYD, M. D.
RICHARD LEBOWICH, M. D.
CHARLES GRIFFIN, M. D.

Resident Pathologist.
BOURIS FRIED, M. D.

Laboratory Assistant.
EDNA M. CHILDS, M. D.

Superintendent of Nurses.
MARGARET J. CHISHOLM.

OUT-PATIENT DEPARTMENT.

Newland Place (in rear of 48 Rutland Street), Boston.

Second Assistant Physician, Director of Out-Patient Clinic.
CLEAVELAND FLOYD, M. D.

Third Assistant Physicians.
BRADFORD KENT, M. D.
ANDREW F. DOWNING, M. D.

Assistant Physicians.
HENRY I. BOWDITCH, M. D.
WILLISTON W. BARKER, M. D.
MICHAEL J. CRONIN, M. D.
HORACE K. BOUTWELL, M. D.
RICHARD H. HOUGHTON, M. D.
ELMOND A. BURNHAM, M. D.
CHARLES A. RILEY, M. D.
JAMES A. HONEIJ, M. D.

Laryngological Assistants.
CHARLES E. SHAY, M. D.
SAMUEL CLINE, M. D.

Bacteriologist.
WALTER W. FRAY.

Superintendent of Nurses.
ZEPHA M. GARDNER.

BOSTON SANATORIUM.

SANATORIUM.

The sanatorium is on River street, Mattapan district.

Electric cars from Forest Hills, Mattapan square or Milton car barns pass through River street.

For admission of patients to the sanatorium apply to the superintendent at Mattapan or to the superintendent of nurses at the Out-Patient Department.

Patients may be visited by their family or friends after ten A. M.

Patients on the dangerous list may have visitors at any time during the day or night.

Visitors must enter the sanatorium through the Administration Building and obtain a pass at each visit.

OUT-PATIENT DEPARTMENT.

The Out-Patient Department is on Newland place, in the rear of 48 Rutland street, Boston.

The Out-Patient Department is open from nine to eleven A. M. on Mondays, Wednesdays, Fridays and Saturdays, and from seven to nine P. M. on Mondays.

There is a special clinic for children on Saturdays.

The evening clinic is only for those who cannot come in the daytime.

CITY OF BOSTON
PRINTING DEPARTMENT